Amendment Under 37 CFR §1.312 dated May 27, 2004

Reply to Notice of Allowance March 11, 2004

## Listing of Claims:

## 1-10. (Canceled)

11. (Previously Presented) A method of treating Alzheimer's disease in a mammalian subject, comprising administering to the subject a dosage of: (a) an immunogenic  $A\beta$  fragment effective to produce an immune response comprising antibodies against  $A\beta$ ; and, (b) an adjuvant that augments the immune response to  $A\beta$ , thereby treating Alzheimer's disease.

## 12-13. (Canceled)

14. (Previously Presented) The method of claim 11, wherein said  $A\beta$  fragment induces an immune response directed against a necepitope formed by amyloid deposits with respect to amyloid precursor protein (APP).

## 15-20. (Canceled)

- 21. (Previously Presented) The method of claim 11, wherein said adjuvant is selected from the group consisting of STIMULON QS-21, 3-De-O-acylated-monophosphoryl lipid A, and alum.
- 22. (Previously Presented) The method of claim 11, wherein said immune response is characterized by a serum titer of the antibodies of at least 1:1000 with respect to  $A\beta$ .
- 23. (Previously Presented) The method of claim 22, wherein said serum titer of the antibodies is at least 1:5000 with respect to  $A\beta$ .
- 24. (Previously Presented) The method of claim 11, wherein said immune response is characterized by a serum titer of the antibodies  $A\beta$  corresponding to greater than about four times higher than a serum titer of anti- $A\beta$  antibodies measured in a pre-treatment control serum sample.

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25. (Previously Presented) The method of claim 24, wherein said serum titer of the antibodies is measured at a serum dilution of about 1:100.

26-58. (Canceled)

- 59. (Previously Presented) A method of prophylaxis of Alzheimer's disease in a mammalian subject, comprising administering to the subject a dosage of: (a) an immunogenic  $A\beta$  fragment effective to produce an immune response comprising antibodies against  $\underline{A\beta}$  and, (b) an adjuvant that augments the immune response to the  $A\beta$ , thereby effecting prophylaxis of Alzheimer's disease.
- 60. (Previously Presented) The method of claim 59, wherein said  $A\beta$  fragment induces an immune response directed against a necepitope formed by amyloid deposits with respect to amyloid precursor protein (APP).

61-63. (Canceled)

- 64. (Previously Presented) The method of claim 59, wherein said adjuvant is selected from the group consisting of STIMULON QS-21, 3 De-O-acylated-monophosphoryl lipid A, and alum.
- 65. (Previously Presented) The method of claim 59, wherein said immune response is characterized by a serum titer of the anti-A $\beta$  antibodies of at least 1:1000 with respect to A $\beta$ .
- 66. (Previously Presented) The method of claim 65, wherein said serum titer of the antibodies is at least 1:5000 with respect to  $A\beta$ .
- 67. (Previously Presented) The method of claim 59, wherein said immune response is characterized by a serum titer of the anti-A $\beta$  antibodies corresponding to greater than about four times higher than a serum titer of anti-A $\beta$  antibodies measured in a pre-treatment control serum sample.

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- 68. (Previously Presented) The method of claim 59, wherein said serum titer of the antibodies is measured at a serum dilution of about 1:100.
  - 69. (Canceled)
- 70. (Previously Presented) The method of claim 11, wherein the subject has a known genetic risk of Alzheimer's disease.
- 71. (Previously Presented) The method of claim 59, wherein the subject has a known genetic risk of Alzheimer's disease.
- 72. (Previously Presented) The method of claim 11, wherein said  $A\beta$  fragment is  $A\beta$ 1-3.
- 73. (Previously Presented) The method of claim 11, wherein said  $A\beta$  fragment is  $A\beta1-4$ .
- 74. (Previously Presented) The method of claim 11, wherein said  $A\beta$  fragment is  $A\beta1-5$ .
- 75. (Previously Presented) The method of claim 11, wherein said  $A\beta$  fragment is  $A\beta$ 1-6.
- 76. (Previously Presented) The method of claim 11, wherein said  $A\beta$  fragment is  $A\beta1-7$ .
  - 77. (Canceled)
- 78. (Previously Presented) The method of claim 11, wherein said  $A\beta$  fragment is  $A\beta$ 1-10.
- 79. (Previously Presented) The method of claim 11, wherein said  $A\beta$  fragment is  $A\beta$ 1-12.

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- 80. (Previously Presented) The method of claim 11, wherein said Aβ fragment is Aβ13-28.
- 81. (Previously Presented) The method of claim 11, wherein said Aβ fragment is Aβ25-35.
- 82. (Previously Presented) The method of claim 11, wherein said  $A\beta$  fragment is A $\beta$ 33-42.
- 83. (Previously Presented) The method of claim 11, wherein said Aβ fragment is linked to a carrier molecule to form a conjugate.
- 84. (Previously Presented) The method of claim 72, wherein said Aβ fragment is linked to a carrier molecule to form a conjugate.
- 85. (Previously Presented) The method of claim 73, wherein said Aβ fragment is linked to a carrier molecule to form a conjugate.
- 86. (Previously Presented) The method of claim 74, wherein said Aβ fragment is linked to a carrier molecule to form a conjugate.
- 87. (Previously Presented) The method of claim 75, wherein said Aβ fragment is linked to a carrier molecule to form a conjugate.
- 88. (Previously Presented) The method of claim 76, wherein said Aβ fragment is linked to a carrier molecule to form a conjugate.
  - 89. (Canceled)
- 90. (Previously Presented) The method of claim 78, wherein said Aβ fragment is linked to a carrier molecule to form a conjugate.
- 91. (Previously Presented) The method of claim 79, wherein said Aß fragment is linked to a carrier molecule to form a conjugate.

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- 92. (Previously Presented) The method of claim 80, wherein said Aβ fragment is linked to a carrier molecule to form a conjugate.
- 93. (Previously Presented) The method of claim 81, wherein said Aβ fragment is linked to a carrier molecule to form a conjugate.
- 94. (Previously Presented) The method of claim 82, wherein said Aβ fragment is linked to a carrier molecule to form a conjugate.
- 95. (Previously Presented) The method of claim 59, wherein said Aβ fragment is Aβ1-3.
- 96. (Previously Presented) The method of claim 59, wherein said  $A\beta$  fragment is  $A\beta1-4$ .
- 97. (Previously Presented) The method of claim 59, wherein said  $A\beta$  fragment is  $A\beta1-5$ .
- 98. (Previously Presented) The method of claim 59, wherein said  $A\beta$  fragment is  $A\beta$ 1-6.
- 99. (Previously Presented) The method of claim 59, wherein said Aβ fragment is Aβ1-7.
  - 100. (Canceled)
- 101. (Previously Presented) The method of claim 59, wherein said A $\beta$  fragment is A $\beta$ 1-10.
- 102. (Previously Presented) The method of claim 59, wherein said  $A\beta$  fragment is  $A\beta$ 1-12.
- 103. (Previously Presented) The method of claim 59, wherein said A $\beta$  fragment is A $\beta$ 13-28.

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- 104. (Previously Presented) The method of claim 59, wherein said  $A\beta$  fragment is  $A\beta25-35$ .
- 105. (Previously Presented) The method of claim 59, wherein said Aβ fragment is Aβ33-42.
- 106. (Previously Presented) The method of claim 59, wherein said Aβ fragment is linked to a carrier molecule to form a conjugate.
- 107. (Previously Presented) The method of claim 95, wherein said Aβ fragment is linked to a carrier molecule to form a conjugate.
- 108. (Previously Presented) The method of claim 96, wherein said Aβ fragment is linked to a carrier molecule to form a conjugate.
- 109. (Previously Presented) The method of claim 97, wherein said  $A\beta$  fragment is linked to a carrier molecule to form a conjugate.
- 110. (Previously Presented) The method of claim 98, wherein said Aβ fragment is linked to a carrier molecule to form a conjugate.
- 111. (Previously Presented) The method of claim 99, wherein said Aβ fragment is linked to a carrier molecule to form a conjugate.
  - 112. (Canceled)
- 113. (Previously Presented) The method of claim 101, wherein said Aβ fragment is linked to a carrier molecule to form a conjugate.
- 114. (Previously Presented) The method of claim 102, wherein said Aβ fragment is linked to a carrier molecule to form a conjugate.
- 115. (Previously Presented) The method of claim 103, wherein said Aβ fragment is linked to a carrier molecule to form a conjugate.

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116. (Previously Presented) The method of claim 104, wherein said Aβ fragment is linked to a carrier molecule to form a conjugate.

117. (Previously Presented) The method of claim 105, wherein said Aβ fragment is linked to a carrier molecule to form a conjugate.